



392208

942671

Site Evaluation Accomplished

for the

Screening Site Inspection

of

Morrison Public Wells 1 and 3

USEPA ID NO. ILD 981 958 309

BVWST PROJECT NO. 70880

For B&V Waste Science and Technology Corp.

Recommended by:

Richard McAvoy
Project Manager

Date: 6/15/93

For U.S. Environmental Protection Agency, Region V

Approved by:

Alan Altan
Work Assignment Manager

Date: 6/17/93

For Illinois Environmental Protection Agency

Approved by:

Division of Land Pollution Control

Date: _____

- 1134 -
W. J. C.

Site Evaluation Accomplished
Morrison Public Wells #1 and #3
USEPA ILD No.: 981 958 309

Morrison Public Wells #1 and #3 (Wells #1 and #3) were listed in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) in 1987. The CERCLIS listing occurred after the Illinois Environmental Protection Agency (IEPA) sampled Wells #1 and #3 on December 3, 1986. Analysis of the samples revealed the presence of trichloroethylene (TCE), trans-1,2 dichloroethylene, and tetrachloroethylene (PCE) in Well #1, and TCE and trans-1,2 dichloroethylene in Well #3. Figure 1 shows the location of Wells #1 and #3.

The IEPA completed a preliminary assessment of Wells #1 and #3 on May 18, 1987. The preliminary assessment (PA) did not include a PA-Score; however, on June 9, 1987, the IEPA calculated a preliminary hazard ranking system score of 23.01. The PA states organic solvents have been detected in groundwater from Wells #1 and #3, in concentrations ranging from 14 to 952 parts per billion (ppb). The PA lists four nearby potential sources: public works garage, sewage treatment plant, municipal landfill, and a General Electric (GE) facility. Noting contamination in the groundwater pathway, the PA concludes a potential hazard exists to the environment and nearby population, and assigned a high priority for further investigation at the site.

In July 1992, B&V Waste Science and Technology Corp. began gathering background data for the Wells #1 and #3 screening site inspection (SSI). On September 1, 1992, an SSI site reconnaissance was conducted at the site. Photographs from the reconnaissance are attached. City of Morrison officials informed the SSI investigators that Well #1 is capped and out of service, and water from Well #3 is treated before it enters the public water supply system.

Background information confirms water from Well #3 is treated by an air stripper before entering the public water supply system. The air stripper was placed in operation on September 1, 1988. The air stripper was financed by GE. GE allegedly disposed of approximately 85,000 gallons of TCE in landfills in Whiteside County (see attached letter from Weston, Inc., dated July 7, 1987).

From 1987 through 1992 (most recent information in background data), GE has initiated several remedial investigations in the Morrison area (see attached chronological listing from S. Komperda, IEPA, dated June 18, 1992). In a February 16, 1988, letter to the IEPA, GE identified eleven potential sources in the area of Wells #1 and #3. A copy of that letter is attached.

Analysis of water samples from Well #3 show no volatile organics remaining in the water after treatment with the air stripper. Attached are copies of analyses of treated Well #3 water from January 1990, and March and June 1992 sampling events. Results for TCE, trans-1,2 dichloroethylene, and PCE are highlighted with an asterisk (*). No sampling of Well #3 water is known to occur before the water enters the air stripper.

Well #1 has been capped and removed from service, and water from Well #3 is treated before entering the public water supply system. At least one nearby potential source owner (GE) is actively pursuing remediation of nearby problem areas under the guidance of the IEPA. Wells #1 and #3 were not the source of contaminants discovered in 1986, and can not be scored through the current system of evaluation. Therefore, a site evaluation accomplished rating is recommended for Morrison Public Wells #1 and #3.

Non-responsive

SOURCE:
US TOPOGRAPHIC MAP, 1985
MORRISON QUADRANGLE

SCALE:
1:24,000



FIGURE 1
SITE LOCATION MAP

MORRISON PUBLIC WELLS
MORRISON, ILLINOIS

B&V WASTE SCIENCE & TECHNOLOGY CORP.

FILE COPY

WESTON • SPER

River Center, 111 North Canal Street, 8th Floor, Suite 855,
Chicago, IL 60606 • (312) 993-1067

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

Mr. Michael Strimbu
Deputy Project Officer
Emergency Response Section
Western Response Unit
U.S. Environmental Protection Agency
11th Floor
230 South Dearborn Street
Chicago, Illinois 60604

July 7, 1987

TAT-05-G2-00094

Re: Morrison Municipal Well, Morrison, Illinois
TDD# 5-8704-10

Dear Mr. Strimbu:

The United States Environmental Protection Agency (U.S. EPA) tasked the Technical Assistance Team (TAT) on April 10, 1987 to compile existing data on the Morrison, Illinois Municipal Water Supply, perform a site inspection, and identify potential remediation options and the associated costs.

The city of Morrison is located in west-central Whiteside County in northwestern Illinois (Figure 1). The city currently has four deep wells to provide water to the residents; of these four wells, three are contaminated with volatile organic compounds. The predominant contaminant, trichloroethylene (TCE), ranged from 950 parts per billion to 14 parts per billion, with minor contaminants being cis-1,2 dichloroethene and tetrachloroethene (PCE). The potential source areas are the five mixed-waste landfills in and around the city consisting of the Fairgrounds Landfill, the Presto Landfill, the Quarry Landfill, the Wetlands area, and the Whiteside County Landfill (Figure 2). These five disposal areas have historically accepted TCE wastes from a local industrial complex which has been owned by General Electric (GE) since 1949. The complex was previously owned by Liquid Carbonics and Herman Nelson, yet it is undetermined if these firms utilized the Wetlands area for TCE disposal; the other landfills were not in existence prior to 1950.

TAT member Ron Fitzpatrick accompanied On-Scene Coordinator (OSC) Verneta Simon to Morrison on April 9, 1987, to meet with Remedial Project Manager Dennis L. Newman of the Illinois Environmental Protection Agency (IEPA) and Morrison city officials. Mr. Newman related that GE had admitted to disposing of approximately 25,000

Roy F. Weston, Inc.

SPILL PREVENTION & EMERGENCY RESPONSE DIVISION

In Association with ICF Technology Inc., C.C. Johnson & Associates, Inc., Resource Applications, Inc., Geo/Resource Consultants, Inc., and Environmental Toxicology International, Inc.

gallons of TCE in the Quarry Landfill and approximately 60,000 gallons of TCE in the Whiteside County Landfill. The Wetlands area reportedly received an unknown amount of TCE with the disposal method consisting of pouring the waste solvent directly on the ground. The Wetlands area is immediately adjacent to the GE facility on property owned by Ethan Allen, a furniture manufacturer. Walter Heath of the Morrison Water Department provided the TAT with a tour of the landfill sites and the municipal water well field.

A return trip to Morrison was made on April 14, 1987 to collect water samples from the municipal wells to verify the existence of the contaminants and the levels. The sample data is summarized in Table 1 and confirms the presence of TCE, PCE, and cis-1,2-DCE.

The TAT identified four remediation options to effectively reduce the levels of VOCs in the municipal water supply prior to distribution. These options were determined under the following premises:

- o Municipal Wells #1 and 2 would be permanently abandoned due to the age and the production capacities of these wells.
- o Well #3 would be the benefactor of any remediation options due to the existing plumbing connections, acceptable production capacity, water quality, and relatively low levels of contamination.

The options and associated costs are summarized below:

Option I - New Air Stripper. System would consist of a tower 36 feet tall and 4 feet in diameter. Removal efficiency of 95-99.5%.

Cost of Stripper
Transport & Installation
18% ODC
15% Contingency

Total Capital Cost



Mr. Michael Strimbu

-3-

July 7, 1987

TAT Costs
EPA Costs

O&M Cost - 1st year
O&M Cost - 2nd year

Option II - New Air Stripper with Carbon Filtration System.
Addition of a GAC unit to remove contaminants not removed by air
stripping. Removal efficiency 100%.

Cost of Both Systems
Transport & Installation
18% ODC
15% Contingency

Total Capital Costs

TAT Costs
EPA Costs

Annual O&M Costs

Option III - Granular Activated Carbon Filtration System. A
20,000 lb. GAC unit with removal efficiency of 100%.

Cost of System
Transport & Installation
18% ODC
15% Contingency

Total Capital Cost

TAT Costs
EPA Costs

Annual O&M Costs



Mr. Michael Strimbu

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July 7, 1987

Option IV - Upgrade Existing Aerator. Refabricate existing aerator to facilitate VOC removal. Although cost is acceptable, removal efficiency cannot be consistently verified.

Cost Refabrication
Transport & Installation
18% ODC
15% Contingency

Total Capital Cost

TAT Costs
EPA Costs

Annual O&M Costs

Options II and III would be the ideal in terms of removal efficiency but the initial capital costs and the annual operational and maintenance costs make the system cost prohibitive. Option IV appears initially to be an attractive option, however, engineering design deficiencies and a poor removal efficiency eliminate this option as a viable mitigative action.

The recommended option to mitigate the VOC contamination in the Morrison Water Supply is Option I, installation of a new air stripper. When considering the capital cost, the removal efficiency, and the annual operation and maintenance cost to the municipality, Option I is clearly the most cost effective and efficient in comparison to the other options.



Mr. Michael Strimbu

-5-

July 7, 1987

A copy of a bid proposal is attached. Should you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,

ROY F. WESTON, INC.

A handwritten signature in cursive script, appearing to read "Ronald G. Fitzpatrick".

Ronald G. Fitzpatrick
Hydrogeologist

A handwritten signature in cursive script, appearing to read "Scott D. Springer".

Scott D. Springer
Technical Assistance Team
Leader, Region V

RGF:ljs

Attachment

FILE COPY

TELEPHONE MEMORANDUM

Client USEPA
Project MORRISON WELLS
Subject STATUS OF MORRISON WELLS
WITH IEPA

B&V Project 70880
B&V File D.2
Date 6/7/93
Time 1330

① To/From: STAN KOMPERDA
Company: IEPA, LLC - REMEDIAL
Phone No.: (217) 782-5504
Recorded by: J. ALBANO

CONTACTED STAN KOMPERDA, GARY KING IS
NO LONGER IN CHARGE OF ~~THE~~ THE MORRISON
PROJECT.

STAN STATED THAT THE IEPA IS PURSUING TWO
ALTERNATE SOURCES (THE WETLANDS WEST OF
ETHAN ALLEN & NW OF GE, AND THE MORRISON
DUMP, LOCATED NE OF THE CITY OF MORRISON) BELIEVED
TO BE SOURCES OF CONTAMINATION TO THE MORRISON
GROUNDWATER. THE LETTER DATED 2.16.88
ADDRESSED TO GARY KING OF IEPA IDENTIFIED
A NUMBER OF SOURCES. GE WROTE THIS LETTER.

STAN STATED THAT THE ~~BE~~ AIR STRIPPER INSTALLED
AT THE MORRISON WELLS IS UNDER THE OPERATION
OF THE CITY OF MORRISON, AND IS STILL OPERATING.
STAN WAS UNAWARE OF RECENT MONITORING SAMPLING
OF THE WELLS. TO THE BEST OF HIS KNOWLEDGE -
NO SAMPLING IS BEING CONDUCTED.

cc: S. A.
J. C.
J. A.

Project # 70880
File 02

June 18, 1992

Division File

Stan Komperda

Site History

Post-It brand fax transmittal memo 7671		# of pages	3
To	Jeff Albano	From	Stan Komperda
Co.	BBWST	Co.	IEPA
Dept.		Phone #	217/782-5504
Fax #	312/346-4781	Fax #	

RE: 1950350007--Whiteside County
Morrison Well Contamination/Morrison
Superfund/Technical Reports

SUMMARY

- 04/15/81: Notification of Hazardous Waste Site letters sent to G.E. Morrison. From approximately 1971-1980, G.E. disposed of solvents, sludges, and mercury at the Whiteside County Landfill. Solvents were dumped from drums onto the ground.
- 02/24/83: Preliminary Assessment done by Ecology & Environment, Inc. for USEPA states risk for ground water contamination by solvents exists.
- 12/12/86: Two of the town wells are shut-down after TCE concentrations of 535 ppb and 14 ppb are discovered in wells 1 and 3 respectively.
- 02/10/87: Agency collects samples while the pump is replaced in well #2. HNu readings from the hole are between 50 and 100 meter units. Photos taken.
- 02/27/87: Phase I Remedial Investigation proposal submitted by Mathes for IEPA.
- 03/09/87: Proposal of 2/27 accepted with comments.
- 03/25/87: Immediate Removal action signed by the Director.
- 05/01/87: Meeting in Morrison with IEPA, USEPA, G.E., Ethan Allen, and City Administrators.
- 05/87: Results of Soil Gas sampling show significant levels of VOC's in the vicinity of city wells 1, 2, 3, and the southern portion of the wetlands area.
- 06/03/87: SSP and Phase I remedial investigation Work Plan are submitted.
- 10/87: Phase I Remedial Investigation report submitted.

- 12/10/87: Meeting with IEPA, City Administrators, Residents, G.E., IDPH, and Mathes. G.E. will fund a study and the construction of a back-up water supply for the city.
- 01/87: Back-up Water Supply Assessment report done by Canonie Environmental for G.E. . An air stripper tower will be used to remove VOC's from the #3 well. This well only to be used as a back-up.
- 01/28/87: Meeting with Agency, G.E., City of Morrison, and Canonie.
- 04/88: Phase II Remedial Investigation plan submitted by Mathes to Agency.
- 06/88: Phase II Remedial Investigation draft Work Plan submitted by Canonie for G.E. to Agency.
- 08/04/88: Agency accepts Canonie Phase II Remedial Investigation draft Work Plan of 06/88 with conditions. Comments sent.
- 09/88: Final Work Plans for Phase II Remedial Investigation by Canonie.
- 09/01/88: Air stripper operation begins at well #3.
- 09/22/88: 4 (q) notice signed by Director. PRP's include G.E., City of Morrison, NorthWest Mutual Life Insurance Company, Ethan Allen, Inc., Interco, Inc., Liquid Carbonic, CBI Industries, American Air Filters, Allis Chalmers Corporation, Ice Cooling Appliance, Midwest Dairy Supply, and Morrison Country Club.
- 07/89: Phase II Remedial Investigation Report submitted by Canonie.
- 04/04/90: Soil Gas survey, prepared by Target Environmental Services for G.E. in 08/89, sent to Agency.
- 04/90: Remedial Investigation Report of Old Morrison City Dump submitted by Canonie for G.E.
- 05/90: Work Plan for the 4 (q) notice sent to Agency by Canonie.
- 05/23/90: Attorney's for G.E. request acknowledgment of satisfaction of the 4 (q) notice.
- 02/92: Work Plan for Phase I Remedial Investigation for the Old Morrison City Dump and its SSP submitted by Canonie.

05/15/92: Agency comments sent on SSP of 02/92.

06/16/92: Canonie submits revised SSP.

cc: Division file
Rockford Regional



88-36

Morrison Contract with
SF/SL
GE Motors

Richard M. Rittenberg
Counsel

General Electric Company
Legal Operation
1635 Broadway, P O Box 2204
Fort Wayne, Indiana 46801-2204
(219) 428-3284
FAX: (219) 428-2071

VIA FEDERAL EXPRESS

February 16, 1988

Gary King, Esq.
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

Re: Morrison Water Supply

Dear Mr. King:

At the December 21, 1987 and January 28, 1988 meetings with IEPA, General Electric identified other potentially responsible parties, and advised that it would provide IEPA a written position statement, describing the other PRP's, and our reasons for concluding that they are PRP's.

The sketch below shows the potentially responsible parties and their location relative to Wells 1, 2 & 3, relative to GE, and relative to the "Wetlands". The identified potentially responsible parties, and the symbols used to represent them on the sketch, are as follows:

1. Ethan Allen - EA
2. Chicago and Northwestern Transportation Co. - RR
3. Liquid Carbonic Corporation - LC
4. Northwestern Mutual Life Insurance Co. - NW
5. Stralow Excavating - SE
6. Eddie Schuler Garage - ES
7. Morrison Implement Company - MI
8. Morrison Country Club - CC
9. Climco Coils, Inc. [Not in area on sketch]
10. Ice Cooling Appliance - ICA
11. American Air Filter - AAF

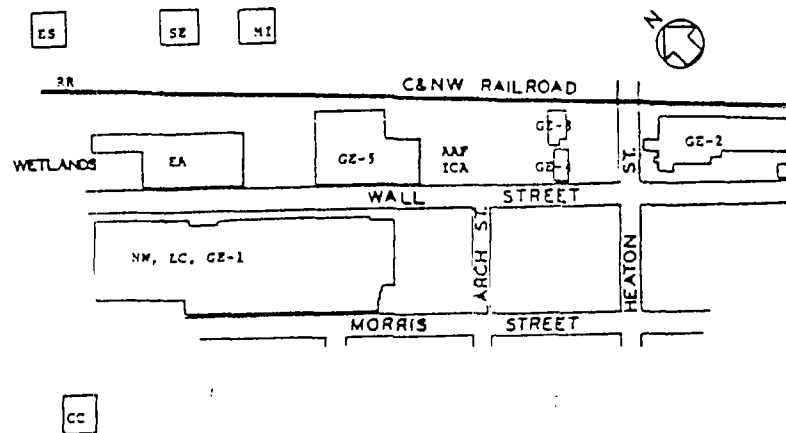
GE locations are also shown on the sketch, as follows:

- Main GE plant - GE-1
GE-Carnation - GE-2 (formerly Carnation)
GE-3 { formerly American Air Filter,
GE-4 { sub. of Allis Chalmers, and
GE-5 { formerly Ice Cooling Appliance

RECEIVED
FEB 17 1988
IEPA/DL

Gary King, Esq.
Page 2
February 16, 1988

The Mathes report considers the "Wetlands" as a possible contamination source, and all of the identified PRP's are located near the Wetlands, known users of the "Wetlands", owners or prior owners of the Wetlands, or a combination thereof.



WELLS 1,2,3

1. Ethan Allen - (EA)

There are two bases for considering Ethan Allen a PRP. First, Ethan Allen is the owner of the "Wetlands", and has been so since 1972. (It's predecessor, Volckman, owned the Wetlands since 1971.) Secondly, Ethan Allen has been a furniture manufacturer at its Morrison location since 1972, and its predecessor, Volckman, was since 1944. Solvents are used in furniture processing both to clean virgin wood and as a component of paints and varnishes.

2. Chicago and Northwestern Transportation Company - (RR)

Railroad which passes through the center of town. Witnesses have informed us of many derailments. The witnesses are unsure of the contents of the train cars. In addition to the derailments, the railroad right of way includes land of the same general type as is in the "Wetlands", and is really a part thereof. The nature of the land adjacent to the railroad tracks, and the multiple derailments that spilled into it, are the bases for considering the railroad a PRP.

3. Liquid Carbonic Corporation - (LC)

In 1944, Liquid Carbonic purchased the land on which the main GE building is now located (GE-1). Liquid Carbonic allowed the land to be used as a disposal area until 1947. It is unknown what wastes were dumped into this area, but since several area businesses used solvents, solvents may have been disposed of in this area. In 1947 Liquid Carbonic sold the land to Northwestern Mutual. Northwestern Mutual built the building (over the former dump site) and leased it to Liquid Carbonic until 1949. Liquid Carbonic manufactured refrigeration equipment. Some of its processes included: a plating operation and cleaning, degreasing and painting metal components of refrigeration equipment. Each process required the use of solvents. Disposal practices are unknown. All of these reasons set forth above establish Liquid Carbonic as a PRP. Liquid Carbonic is a subsidiary of CBI Industries, Inc., 800 Jorie Blvd., Oak Brook, Illinois 60522.

4. Northwestern Mutual Life Insurance Company - (NW)

Northwestern Mutual is the property owner of the land where the main GE building stands (GE-1). It purchased the land in 1947 from Liquid Carbonic. Prior to constructing the main building, it allowed businesses and Morrison residents to use the land as a disposal area and subsequently built the building on top of the disposal area.

5. Stralow Excavating - (SE)

Stralow Excavating location is adjacent to the Wetlands, just on the other side of the tracks. Stralow is in the excavation and construction business, and maintains its equipment on the premises. Debris and garbage, such as old barrels, 55 gallon drums, oil filters, fill and tires presently litter the Stralow Excavating property. There are also large used underground storage tanks sitting on the property. Lined up along the outside wall of the main building are rolls of 55 gallon drums. Its proximity to the Wetlands, waste disposal practices and probable use of solvents in its maintenance operation are the bases for considering Stralow Excavating to be a PRP.

6. Eddie Schuler Garage - (ES)

Eddie Schuler Garage is located adjacent to the Wetlands on the opposite side of the tracks. Eddie Schuler is an automotive dealer and repair shop. Automotive maintenance shops are known users of solvents as parts cleaners and degreasers. Also, general debris and garbage is scattered on Eddie Schuler's property. Some examples of the debris and garbage are old 55 gallon drums, oil filters, tires, litter and fill. Proximity to the Wetlands, the debris on the property, and the type of business, are the bases for considering Eddie Schuler Garage to be a PRP.

7. Morrison Implement Company - (MI)

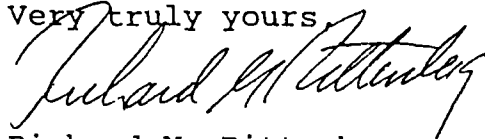
Morrison Implement Company is located adjacent to the Wetlands on the opposite side of the tracks, and it is a farm implement dealer. To the extent it also repairs farm equipment, solvents would be used as a cleaner and degreaser. General debris and garbage are strewn across its property. Some of the debris and property includes old barrels, 55 gallon drums, oil filters, tires and fill. Proximity to the Wetlands, probable use of solvents and type and amount of garbage on its property are the bases for considering Morrison Implement to be a PRP.

Gary King, Esq.
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February 16, 1988

We have prepared a questionnaire designed to elicit relevant information from these PRP's. This questionnaire is attached hereto, along with a draft transmittal letter. We request that you send this questionnaire to these PRP's. (Exhibit 1 hereto is the proposed transmittal letter, Exhibit 2 the questionnaire, and Exhibit 3 the list of addresses with official names and addresses.)

Your review and consideration of this material is respectfully requested. We are prepared to meet with you further and provide additional supporting information, including aerial photographs.

Very truly yours



Richard M. Rittenberg
Counsel - GE Motors

RMR/bw

Attachments

cc: J. Frank - IEPA
J. Janssen - IEPA
D. Newman - IEPA
S. Tapson - City of Morrison



SECTION OF PUBLIC WATER SUPPLIES

DATE: 01-23-90

LECT SAMPLE AT: FINISHED - SOUTH PLANT

ILITY: 24 MORRISON PWS 1950350

REPORT TO:

TO: City of Morrison

OR: 200 West Main St

TY: Morrison STATE: IL ZIP: 61270

WATER QUALITY SAMPLING PROGRAM:

VOC ANALYSIS

BVWST Project 70890 0078713
BVWST File I-7

DATE COLLECTED: 01-23-90

TIME COLLECTED: 10:15 AM

SAMPLE COLLECTOR: K. H. Hest

PHONE NUMBER: 815-772-4316

FUNDING CODE: PW30

AGENCY ROUTING:

SAMPLE TYPE: ?t

PURPOSE: ?u

RPT INDICATOR: B

SUBMIT SOURCE: ?i

SMPL PROGRAM: VO-WQVOC

PARAM GROUP: ?g

FACILITY: 24 Morrison 1950350

SAMPLE LOCATION Stripped discharge
Finished - well #3

AFTER AIR STRIPPING COLUMN
~~check for air stripping~~

RUN well + stripper 30 minutes
before collecting sample

FROM: IL EPA LABORATORY SERVICES
4th FLOOR
825 N. RUTLEDGE
SPRINGFIELD, IL 62702

TO: ?s
?a
?2
?c, IL ?z

FROM: ?s
?a
?2
?c, IL ?z

TO: IL EPA LABORATORY SERVICES
4th FLOOR
825 N. RUTLEDGE
SPRINGFIELD, IL 62702

SENDER'S NAME
PUBLIC WATER SUPPLIES
EPA
FEB 1 1990

---LAB USE ONLY---

SAMPLE NUMBER

DATE RECEIVED FEB 1 1990

TIME RECEIVED 11:00 AM

RECEIVED BY [Signature]

DATE FORWARDED 2-14-90 [Signature]

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SAMPLE NUMBER : 0072713

SAMPLING POINT DESC. : MERRISON/WELL 3 STRIPPER DISCHARGE

SUBMITTING SOURCE # :

SITE # :

DATE COLLECTED : 900130

TIME COLLECTED : 1015

SAMPLING PROGRAM : VO

COLLECTED BY : WALT HEATH

DELIVERED BY : EPA

COMMENTS : VOCs

FUNDING CODE : PW30

AGENCY ROUTING : --

UNIT CODE :

SAM TYPE CODE :

SAMPLE PURPOSE CODE : U REPORTING INDICATOR : B

DATE RECEIVED : 900201

TIME RECEIVED : 1100

RECEIVED BY : D Y

LAB OBSERVATIONS : 2 VOC

TRIP BL SAM# : 0078715

SUPERVISORS INITIALS : JTH

NOTE : K = LESS THAN VALUE *215-10*

P32106 CHLOROFORM	UG/L : 1.0K
P32101 DICHLOROBROMOMETHANE	UG/L : 1.0K
P32105 CHLORODIBROMOMETHANE	UG/L : 1.0K
P32104 BROMOFORM	UG/L : 1.0K
P34423 METHYLENE CHLORIDE	UG/L : 1.0K
P34501 1,1-DICHLOROETHYLENE	UG/L : 1.0K
P34496 1,1-DICHLOROETHANE	UG/L : 1.0K
P34546 TRANS-1,2-DICHLOROETHYLENE	UG/L : 1.0K*
P34531 1,2-DICHLOROETHANE	UG/L : 1.0K
P34506 1,1,1-TRICHLOROETHANE	UG/L : 1.0K
P32102 CARBON TETRACHLORIDE	UG/L : 1.0K
P39180 TRICHLOROETHYLENE	UG/L : 1.0K*
P34475 TETRACHLOROETHYLENE	UG/L : 1.0K*
P34301 CHLOROBENZENE	UG/L : 1.0K
P34716 DICHLOROBENZENE(TOTAL)	UG/L : 1.0K
P78124 BENZENE	UG/L : 1.0K
P78131 TOLUENE	UG/L : 1.0K
P78113 ETHYLBENZENE	UG/L : 1.0K
P81551 XYLENES	UG/L : 1.0K
P77093 CIS-1,2-DICHLOROETHYLENE	UG/L : 1.0K



Illinois Environmental Protection Agency • 2200 Churchill Road, Springfield, IL 62706

DIVISION OF PUBLIC WATER SUPPLIES

VOLATILE ORGANIC CHEMICALS

FACILITY: 1950350 MORRISON

SAMPLE AND DEMAND SCHEDULE: MAR 1, 1992 - MAR 31, 1992

MAIL REPORT TO:

BVWST Project 70880

BVWST File I-7

NAME: WALTER M. HEATH

DATE COLLECTED 3-24-92

ADDR: 220 WEST MAIN ST.

SAMPL COLLECTOR WALTER HEATH

CITY: MORRISON STATE ILL. ZIP 61270

PHONE NUMBER 815-772-4316

FUNDING CODE: PW32
SAMPLE TYPE: FPWS - FINISHED
PURPOSE: 1 - ROUTINE
SUBMIT SRC: 195035003
SMPL PROGRAM: VO - VOC
FREQUENCY: QUARTERLY

FOR BLANK SAMPLE USE PURPOSE: 8)

COLLECT WATER FROM THE FINISHED
WATER/ENTRY POINT INTO THE
DISTRIBUTION SYSTEM SERVED BY
CB WELL 3

242A BOTTLE: # 2 + 2A
LOCATION: WELL NO. 3 WATER PLANT
TIME COLLECTED: 10:30 AM

FROM: MORRISON 1950350
HEATH, WALTER
MORRISON WTR DEPT
320 W WINFIELD
MORRISON IL 61270

TO: IEPA - LABORATORY SERVICES
FOURTH FLOOR
825 NORTH RUTLEDGE
SPRINGFIELD, IL 62702

FROM: IEPA - LABORATORY SERVICES
FOURTH FLOOR
825 NORTH RUTLEDGE
SPRINGFIELD, IL 62702

TO: HEATH, WALTER
MORRISON WTR DEPT
320 W WINFIELD
MORRISON IL 61270

LAB USE ONLY

D215009

SAMPLE NUMBER

DATE RECEIVED MAR 25 1992

TIME RECEIVED

RECEIVED BY

DATE FORWARDED 4-1-92 SPV [Signature]

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SAMPLE NUMBER : 0215009
SAMPLING POINT DESC. : MORRISON/WELL #3 WATER PLANT

716
4/7/92

SUBMITTING SOURCE # : 195035003 SITE # :
DATE COLLECTED : 920324 TIME COLLECTED : 1030 SAMPLING PROGRAM : VC

COLLECTED BY : WALTER HEATH DELIVERED BY : EPA

COMMENTS : VOCs

FUNDING CODE : PW32 AGENCY ROUTING : -- UNIT CODE :
SAM TYPE CODE : FPKS SAMPLE PURPOSE CODE : 1 REPORTING INDICATOR : 5

DATE RECEIVED : 920325 TIME RECEIVED : 1100 RECEIVED BY : A P
LAB OBSERVATIONS : 2 VOC TRIP BL SAM# : 0215010
SUPERVISORS INITIALS : JTH NOTE : K = LESS THAN VALUE

:
:
:
:
:
: TRIHALOMETHANES

P32106 CHLOROFORM	UG/L : 0.5K
P32101 BROMODICHLOROMETHANE	UG/L : 0.5K
P32105 CHLORODIBROMOMETHANE	UG/L : 0.5K
P32104 BROMOFORM	UG/L : 0.5K

:
:
:
:
: REGULATED VOLATILE ORGANIC COMPOUNDS

P34506 1,1,1-TRICHLOROETHANE	UG/L : 0.5K
P34511 1,1,2-TRICHLOROETHANE	UG/L : 0.5K
P34501 1,1-DICHLOROETHYLENE	UG/L : 0.5K
P34551 1,2,4-TRICHLOROBENZENE	UG/L : 0.5K

P34536 1,2-DICHLOROBENZENE	UG/L : 0.5K
P32103 1,2-DICHLOROETHANE	UG/L : 0.5K
P34541 1,2-DICHLOROPROPANE	UG/L : 0.5K
P34571 1,4-DICHLOROBENZENE	UG/L : 0.5K

P34030 BENZENE	UG/L : 0.5K
P32102 CARBON TETRACHLORIDE	UG/L : 0.5K
P34301 CHLOROBENZENE	UG/L : 0.5K
P77093 CIS-1,2-DICHLOROETHYLENE	UG/L : 0.5K

P34371 ETHYLBENZENE	UG/L : 0.5K
P34423 METHYLENE CHLORIDE	UG/L : 0.5K
P77126 STYRENE	UG/L : 0.5K
P34475 TETRACHLOROETHYLENE	UG/L : 0.5K

SAMPLE NUMBER : 0215009

P34010	TOLUENE	UG/L : 0.5K
P31551	TOTAL XYLENES	UG/L : 0.5K
P34040	TRANS-1,2-DICHLOROETHYLENE	UG/L : 0.5K *
P39100	TRICHLOROETHYLENE	UG/L : 0.5K *
P39175	VINYL CHLORIDE	UG/L : 0.5K
: UNREGULATED VOLATILE ORGANIC COMPOUNDS		
: .		
P77502	1,1,1,2-TETRACHLOROETHANE	UG/L : 0.5K
P34510	1,1,2,2-TETRACHLOROETHANE	UG/L : 0.5K
P34490	1,1-DICHLOROETHANE	UG/L : 0.5K
P77100	1,1-DICHLOROPROPANE	UG/L : 0.5K
P77443	1,2,3-TRICHLOROPROPANE	UG/L : 0.5K
P34500	1,3-DICHLOROBENZENE	UG/L : 0.5K
P77173	1,3-DICHLOROPROPANE	UG/L : 0.5K
P77170	2,2-DICHLOROPROPANE	UG/L : 0.5K
P01555	BROMOBENZENE	UG/L : 0.5K
P34415	BROMOMETHANE	UG/L : 0.5K
P34311	CHLOROETHANE	UG/L : 0.5K
P34418	CHLOROMETHANE	UG/L : 0.5K
P34704	CIS-1,3-DICHLOROPROPENE	UG/L : 0.5K
P81522	DIBROMOMETHANE	UG/L : 0.5K
P77970	TOTAL CHLOROTOLUENES	UG/L : 0.5K
P34599	TRANS-1,3-DICHLOROPROPENE	UG/L : 0.5K
: .		



D218796

Illinois Environmental Protection Agency • P.O. Box 19276, Springfield, IL 62794-9276

DIVISION OF PUBLIC WATER SUPPLIES

VOLATILE ORGANIC CHEMICALS

FACILITY: 1950350 MORRISON

SAMPLE AND DEMAND SCHEDULE: JUN 1, 1992 - JUN 30, 1992

BVWST Project 10880BVWST File H.I.7a

MAIL REPORT TO:

NAME: WALTER M. HEATHDATE COLLECTED 6-17-92ADDR: 200 WEST MAIN ST.SMPL COLLECTOR WALTER HEATHCITY: MORRISON STATE ILL. ZIP 61270PHONE NUMBER 815-772-4316

FUNDING CODE: PW32
SAMPLE TYPE: FPWS - FINISHED
PURPOSE: 1 - ROUTINE
SUBMIT SRCE: 195035003
SMPL PROGRAM: VO - VOC
FREQUENCY: QUARTERLY

FOR BLANK SAMPLE USE PURPOSE: 80

COLLECT WATER FROM THE FINISHED
WATER/ENTRY POINT INTO THE
DISTRIBUTION SYSTEM SERVED BY
03 WELL 3

2+2A BOTTLE: 2 + 2ALOCATION: FINISHED WATER AT
AIR STRIPPER WELLSTIME COLLECTED: 7:30 AM

FROM: IEPA - LABORATORY SERVICES
FOURTH FLOOR
825 NORTH RUTLEDGE
SPRINGFIELD, IL 62702

TO: HEATH, WALTER
MORRISON WTR BEPT
320 W WINFIELD
MORRISON

IL 61270

RECEIVED

JUL 16 1992

Environmental Protection Agency
State of Illinois

--- LAB USE ONLY ---

SAMPLE NUMBER

D218796

DATE RECEIVED

JUN 18 1992

TIME RECEIVED

11:05 AM EPA

RECEIVED BY

JMC

DATE FORWARDED

7-14-92 SPYSE Q. Henley

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SAMPLE NUMBER : 0218796

SAMPLING POINT DESC. : MORRISON/FIN WTR AT AIR STRPR WELL 3

SUBMITTING SOURCE # : 195035003

SITE # :

DATE COLLECTED : 920617

TIME COLLECTED : 0730

SAMPLING PROGRAM : VO

COLLECTED BY : WALTER HEATH

DELIVERED BY : EPA

COMMENTS : VOCs

FUNDING CODE : PW32

AGENCY ROUTING : --

UNIT CODE :

SAM TYPE CODE : FPWS

SAMPLE PURPOSE CODE : 1 REPORTING INDICATOR : B

DATE RECEIVED : 920613

TIME RECEIVED : 1105

RECEIVED BY : JFC

LAB OBSERVATIONS : 2 VOC

TRIP BL SAM# : 0218797

SUPERVISORS INITIALS : JTF

NOTE : K = LESS THAN VALUE

: .
: .
: .
: .
: .

: TRIHALOMETHANES

P32106 CHLOROFORM

UG/L : 0.5K

P32101 BROMODICHLOROMETHANE

UG/L : 0.5K

P32105 CHLORO Dibromomethane

UG/L : 0.5K

P32104 BROMOFORM

UG/L : 0.5K

: .
: .
: .
: .

: REGULATED VOLATILE ORGANIC COMPOUNDS

P34506 1,1,1-TRICHLOROETHANE

UG/L : 0.5K

P34511 1,1,2-TRICHLOROETHANE

UG/L : 0.5K

P34501 1,1-DICHLOROETHYLENE

UG/L : 0.5K

P34551 1,2,4-TRICHLOROBENZENE

UG/L : 0.5K

P34536 1,2-DICHLOROBENZENE

UG/L : 0.5K

P32103 1,2-DICHLOROETHANE

UG/L : 0.5K

P34541 1,2-DICHLOROPROPANE

UG/L : 0.5K

P34571 1,4-DICHLOROBENZENE

UG/L : 0.5K

P34030 BENZENE

UG/L : 0.5K

P32102 CARBON TETRACHLORIDE

UG/L : 0.5K

P34501 CHLOROBENZENE

UG/L : 0.5K

P77093 CIS-1,2-DICHLOROETHYLENE

UG/L : 0.5K

P34371 ETHYLBENZENE

UG/L : 0.5K

P34423 METHYLENE CHLORIDE

UG/L : 0.5K

P77128 STYRENE

UG/L : 0.5K

P34475 TETRACHLOROETHYLENE

UG/L : 0.5K *

MBC
7-20-92

SAMPLE NUMBER : 0218796

P34010 TOLUENE	UG/L : 0.5K
P81551 TOTAL XYLENES	UG/L : 0.5K
P34540 TRANS-1,2-DICHLOROETHYLENE	UG/L : 0.5K *
P39180 TRICHLOROETHYLENE	UG/L : 0.5K *
P39175 VINYL CHLORIDE	UG/L : 0.5K
: UNREGULATED VOLATILE ORGANIC COMPOUNDS	
: .	
P77562 1,1,1,2-TETRACHLOROETHANE	UG/L : 0.5K
P34516 1,1,2,2-TETRACHLOROETHANE	UG/L : 0.5K
P34496 1,1-DICHLOROETHANE	UG/L : 0.5K
P77163 1,1-DICHLOROPROPENE	UG/L : 0.5K
P77443 1,2,3-TRICHLOROPROPANE	UG/L : 0.5K
P34566 1,3-DICHLOROBENZENE	UG/L : 0.5K
P77173 1,3-DICHLOROPROPANE	UG/L : 0.5K
P77170 2,2-DICHLOROPROPANE	UG/L : 0.5K
P81553 BROMOBENZENE	UG/L : 0.5K
P34413 BROMOMETHANE	UG/L : 0.5K
P34311 CHLOROETHANE	UG/L : 0.5K
P34413 CHLOROMETHANE	UG/L : 0.5K
P34704 CIS-1,3-DICHLOROPROPENE	UG/L : 0.5K
P81522 DIETHYLBENZENE	UG/L : 0.5K
P77970 TOTAL CHLOROTOLUENES	UG/L : 0.5K
P34699 TRANS-1,3-DICHLOROPROPENE	UG/L : 0.5K
: .	

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SAMPLE NUMBER : C218797
SAMPLING POINT DESC. : BLANK W/18795-96 MORRISON

SUBMITTING SOURCE # : 195035003 SITE # :
DATE COLLECTED : 920617 TIME COLLECTED : 0730 SAMPLING PROGRAM : VO

COLLECTED BY : WALTER HEATH DELIVERED BY : EPA
COMMENTS : VOCs
FUNDING CODE : PW32 AGENCY ROUTING : -- UNIT CODE :
SAM TYPE CODE : FPWS SAMPLE PURPOSE CODE : 8 REPORTING INDICATOR : 3

DATE RECEIVED : 920618 TIME RECEIVED : 1105 RECEIVED BY : JMC
LAB OBSERVATIONS : 2 BLANKS TRIP BL SAM# :
SUPERVISORS INITIALS : JTH NOTE : K = LESS THAN VALUE

: .
: .
: .
: .
: TRIHALOMETHANES

P32106 CHLOROFORM	UG/L : 0.5K
P32101 BROMODICHLOROMETHANE	UG/L : 0.5K
P32105 CHLORODIBROMOMETHANE	UG/L : 0.5K
P32104 BROMOFORM	UG/L : 0.5K

: .
: .
: .
: .
: REGULATED VOLATILE ORGANIC COMPOUNDS

P34506 1,1,1-TRICHLOROETHANE	UG/L : 0.5K
P34511 1,1,2-TRICHLOROETHANE	UG/L : 0.5K
P34501 1,1-DICHLOROETHYLENE	UG/L : 0.5K
P34551 1,2,4-TRICHLOROBENZENE	UG/L : 0.5K

P34536 1,2-DICHLOROBENZENE	UG/L : 0.5K
P32103 1,2-DICHLOROETHANE	UG/L : 0.5K
P34541 1,2-DICHLOROPROPANE	UG/L : 0.5K
P34571 1,4-DICHLOROBENZENE	UG/L : 0.5K

P34030 BENZENE	UG/L : 0.5K
P32102 CARBON TETRACHLORIDE	UG/L : 0.5K
P34301 CHLOROBENZENE	UG/L : 0.5K
P77093 CIS-1,2-DICHLOROETHYLENE	UG/L : 0.5K

P34371 ETHYLBENZENE	UG/L : 0.5K
P34423 METHYLENE CHLORIDE	UG/L : 0.5K
P77128 STYRENE	UG/L : 0.5K
P34475 TETRACHLOROETHYLENE	UG/L : 0.5K *

SAMPLE NUMBER : 0218797

P34010 TOLUENE	UG/L : 0.5K
P81551 TOTAL XYLENES	UG/L : 0.5K
P34546 TRANS-1,2-DICHLOROETHYLENE	UG/L : 0.5K*
P39180 TRICHLOROETHYLENE	UG/L : 0.5K*
P39175 VINYL CHLORIDE	UG/L : 0.5K
: UNREGULATED VOLATILE ORGANIC COMPOUNDS	
:	
P77562 1,1,1,2-TETRACHLOROETHANE	UG/L : 0.5K
P34516 1,1,2,2-TETRACHLOROETHANE	UG/L : 0.5K
P34496 1,1-DICHLOROETHANE	UG/L : 0.5K
P77168 1,1-DICHLOROPROPENE	UG/L : 0.5K
P77443 1,2,3-TRICHLOROPROPANE	UG/L : 0.5K
P34566 1,3-DICHLOROBENZENE	UG/L : 0.5K
P77173 1,3-DICHLOROPROPANE	UG/L : 0.5K
P77170 2,2-DICHLOROPROPANE	UG/L : 0.5K
P81555 BROMOBENZENE	UG/L : 0.5K
P34413 BROMOMETHANE	UG/L : 0.5K
P34511 CHLOROETHANE	UG/L : 0.5K
P34418 CHLOROMETHANE	UG/L : 0.5K
P34704 CIS-1,3-DICHLOROPROPENE	UG/L : 0.5K
P81522 DIBROMOMETHANE	UG/L : 0.5K
P77970 TOTAL CHLOROTOLUENES	UG/L : 0.5K
P34699 TRANS-1,3-DICHLOROPROPENE	UG/L : 0.5K
:	

Canonie Environmental

BVWST Project 70880
BVWST File H.C

September 6, 1988

Canonie Environmental Services Corp.
800 Canonie Drive
Porter, Indiana 46304
Phone 219-926-8651
87-115-01

Mr. Walter Heath
Morrison Water Works
520 West Winfield
Morrison, IL 61270

Transmittal
Performance Verification
Packed Tower Air Stripper for City Well No. 3
Morrison, Illinois

Dear Mr. Heath:

Canonie Environmental Services Corp. (Canonie) conducted start-up testing of the packed tower air stripper (packed tower) for the city of Morrison, Illinois' City Well No. 3 on August 3, 4, and 5, 1988. Start-up testing activities were performed to verify the packed tower's effectiveness in removing volatile organics.

City Well No. 3 pumped at approximately 700 gallons per minute continuously for 24 minutes on four separate occasions during the three days of start-up testing. Water samples were collected at the end of each 24-minute testing period and analyzed by gas chromatograph for purgeable halocarbons in accordance with U.S. Environmental Protection Agency Method 601. Laboratory analysis showed no detectable volatile organics in the treated water discharging from the packed tower.

Please call if you have any questions.

Very truly yours,



Timothy J. Harrington
Vice President - Midwest

TJH/tl

cc: Thomas Corneil, General Electric Company
Kenneth Spence, General Electric Company

Canonie Environmental

BVWST Project 70880
BVWST File H.C.

Canonie Environmental Services Corp.
800 Canonie Drive
Porter, Indiana 46304
Phone 219-926-8651
87-115-03

September 30, 1988

Mr. Walter M. Heath
Morrison Water Works
520 West Winfield
Morrison, IL 61270

Analytical Results
Packed Tower Air Stripper
Morrison, Illinois

Dear Mr. Heath:

As I understood from a discussion with Walter Bowles, you have requested copies of the analytical results on the air stripping towers' performance. As you know, we are recovering weekly sampling for analysis as part of our quality control program. We have to date received the analyses for water samples recovered on September 2, 9, and 16, 1988.

The results indicate that trichloroethylene (TCE) is present in the influent at concentrations of 56 parts per billion (ppb) on September 2, 1988, 31 ppb on September 9, 1988, and 26 ppb on September 16, 1988. The results also indicate that TCE and other volatile organics were not present in the effluent from the air stripper. I have enclosed copies of these three analyses for your files.

We are presently continuing to sample the influent and effluent on a weekly basis both to insure the operation of this system and to collect information on the influent qualities for use in the assessment of the effects from plugging City Well Nos. 1 and 2. We will be happy to continue to keep you advised of the performance as we receive the results.

If you have any questions, please call.

Very truly yours,

Timothy J. Harrington/dh

Timothy J. Harrington
Vice President - Midwest

TJH/t1

Attachment

cc: Tom Corneil, General Electric Company
Ken Spence, General Electric Company

Non-responsive

Date: 09/01/92

Time: 1010

Photo Taken By: J. M. Albano

Photo Number: 1

Location/ILD#: Morrison Public Wells
ILD

Direction of Photo: Northeast

Description: View is city well #1. Well #1 is
no longer in use.

Date: 09/01/92

Time: 1011

Photo Taken By: J. M. Albano

Photo Number: 2

Location/ILD #: Morrison Public Wells
ILD

Direction of Photo: Northwest

Description: View of city well #2. Well #2 is
no longer in use.

Non-responsive

Date: 09/01/932

Time: 1020

Photo Taken By: J. M. Albano

Photo Number: 3

Location/ILD #: Morrison Public Wells
ILD

Direction of Photo: Northwest

Description: View of city well #3. Well #3 is
located within building.

Date: 09/01/92

Time: 1028

Photo Taken By: J. M. Albano

Photo Number: 4

Location/ILD #: Morrison Public Wells
ILD

Direction of Photo: Southwest

Description: Air stripper installed by GE at
Morrison Water Department.